APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/077,051	02/15/2002	Felipe Knop	POU920020018US1	1593

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EXAMINER
GILLIS, BRIAN J

ART UNIT	PAPER NUMBER
2141	

DATE MAILED: 05/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/077,051	KNOP ET AL.
	Examiner	Art Unit	
	Brian Gillis	2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>2/15/02</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-10</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-10</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>09 May 2002</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>2/15/2002</u>.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites the limitation "said message node" in line 14. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujimori (US PGPUB #US2002/0062217) in view of Vepa et al (US Patent #6,694,369).

Claims 1, 5, and 8 discloses a method, system, and a program product for detecting node reachability inconsistencies in the presence of temporary communication failure or temporary daemon blockage, said method comprising: upon detecting at a first node conditions suitable for instituting change in adapter group membership, sending to a recipient node, a message indicative of

membership in a previous stable adapter membership group upon the condition

that said recipient node is also indicated as being part of said stable group; and

initiating a group join protocol in which said message is rejected by a recipient

node under a condition selected from the group of conditions consisting of

(1) said message includes indicia showing that the sending node and the

recipient node are in the same adapter membership class, said indicia being in

conflict with corresponding indicia stored within said recipient node;

and (2) said message includes indicia showing that the sending node and the

recipient node are in different adapter membership classes, said indicia being in

conflict with corresponding indicia stored within said recipient node. Fujimori

teaches of detecting an additional node to connect to the communication network

and initiating a join protocol (paragraph 44, lines 3-8, figures 3, 4B, 5, 6). It fails

to teach of initiating the join protocol under a condition selected from a group of

conditions. Vepa et al teaches of a comparison where a transmission is received

and is processed based on a comparison (column 7, lines 46-54).

Fujimori and Vepa et al are analogous art because they are both related to

network interconnection.

At the time of the invention it would have been obvious to a person of

ordinary skill in the art to use the comparison in Vepa et al with the node

detection in Fujimori because efficient communication on a network where

compliant and non compliant computers may be connected at various ports is

provided (Vepa et al, column 3, lines 27-31).

Claim 2 discloses the method of claim 1 in which said conditions include failure to detect heartbeat messages at said first node. Fujimori teaches of detecting an additional node to connect to the communication network and initiating a join protocol (paragraph 44, lines 3-8, figures 3, 4B, 5, 6). It fails to teach of using the detection of heartbeat messages. Vepa et al teaches of a comparison where a transmission is received and is processed based on a comparison and of using the detection of a heartbeat message (column 7, lines 46-54, column 8, lines 3-15).

Fujimori and Vepa et al are analogous art because they are both related to network interconnection.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the comparison and heartbeat message detection in Vepa et al with the node detection in Fujimori because efficient communication on a network where compliant and non compliant computers may be connected at various ports is provided (Vepa et al, column 3, lines 27-31).

Claims 3, 6, and 9 disclose the method, system and program of claims 2, 5, and 8 further including a step in which said first node, after its first message is rejected, transmits a second message which is indicative of nonmembership in a previously stable group, whereby the goal of having the sender and receiver agree on adapter group membership is advanced. Fujimori teaches of detecting an additional node to connect to the communication network and initiating a join protocol (paragraph 44, lines 3-8, figures 3, 4B, 5, 6). It fails to teach of transmitting a second message in order to have the sender and receiver agree

on membership. Vepa et al teaches of retransmitting a message to make certain

the client is receiving but ignoring the ping request (column 8, lines 15-18).

Fujimori and Vepa et al are analogous art because they are both related to

network interconnection.

At the time of the invention it would have been obvious to a person of

ordinary skill in the art to use the message retransmittal in Vepa et al with the

node detection in Fujimori because the system is able to reconfigure itself in real

time avoiding failed communications (Vepa et al, column 3, lines 40-45).

Claims 4, 7, and 10 disclose the method, system, and program of claims

3, 6 and 9 further including the step of processing said second message so as to

provide mutually consistent views of the liveness of nodes in the membership

group. Fujimori teaches of detecting an additional node to connect to the

communication network and initiating a join protocol (paragraph 44, lines 3-8,

figures 3, 4B, 5, 6). It fails to teach of processing the second message to show

the liveness of nodes. Vepa et al teaches of establishing client status at regular

intervals (column 10, lines 60-67).

Fujimori and Vepa et al are analogous art because they are both related to

network interconnection.

At the time of the invention it would have been obvious to a person of

ordinary skill in the art to use the establishing of client status in Vepa et al with

the node detection system in Fujimori because a frequent status update is

provided without burdening the network with unnecessary inquiries (Vepa et al,

column 11, lines 13-16).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chung et al (US Patent #6,195,760) teaches of failure detection and recovery for applications in a network. Badovinatz et al (US Patent #5,793,962) teaches of managing a group of processors in a distributed computing environment. Sreenivasan et al (US PGPUB #US2002/0049845) teaches of maintaining membership in high availability systems. Van Renesse (US Patent # 6,411,967) teaches of a system with replicated management information base. Murphy et al (US Patent #6,138,251) teaches of reliable remote object reference management.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Gillis whose telephone number is 571-272-7952. The examiner can normally be reached on M-F 7:45-4:15.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 571-272-3880. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brian Gillis
Examiner
Art Unit 2141

BJG

RUPAL DHARIA
SUPERVISORY PATENT EXAMINER